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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/409,617	10/01/1999	DAVID MICHAEL SHACKELFORD	TU9-99-029	5644

			EXAMINER
46917	7590	02/24/2005	LANIER, BENJAMIN E

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ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/409,617	SHACKELFORD, DAVID MICHAEL
	Examiner	Art Unit	
	Benjamin E Lanier	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 December 2004</u> .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-40</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-40</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>01 October 1999</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1.   The amendment filed 09 December 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "Maintaining keys of all authorized users of software to be distributed" from claims 1, 16, 27, "wherein the maintained keys comprise public keys from the authorized users" from claims 9, 11, 22, 24, 35, 37. Applicant points to page 6, lines 14-20 and page 7, line 14 to page 8, line 15 of the specification for support of these limitations. These portions of the specification disclose that the source system maintains key of all authorized <u>systems</u> of software to be distributed, but is silent with respect to individual users. Therefore the amendments are improper because they require the source system or first system to maintain keys of all authorized users rather than authorized systems as disclosed in the specification.

      Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

2.   Applicant's arguments filed 09 December 2004 have been fully considered but they are not persuasive. Applicant's argument that there is no teaching in the prior art of maintaining keys for authorized users of the software is not persuasive because Takahashi discloses that the store side, which meets the limitation of the first computer system, contains a user information storage unit (Fig. 4, 58) that the shared keys of authorized users (Col. 10, line 55 – Col. 11, line 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made

for the registration process of Ananda to include the delivery of a cryptographic key to the

software server in order to establish encrypted communication between the server and the user as

taught in Takahashi (Col. 2, line 12).

3.   Applicant's arguments that there is no teaching in the prior art of the keys being used to

decrypt encrypted responses is not persuasive because Takahashi discloses an encrypted message

is sent from the client to the store side and decrypted with the shared key (Col. 12, lines 20-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

for the registration process of Ananda to include the delivery of a cryptographic key to the

software server in order to establish encrypted communication between the server and the user as

taught in Takahashi (Col. 2, line 12).

4.   Applicant's argument that there is no teaching in the prior art of determining whether

there is a key to decrypt a response from the user and then using the presence or absence of that

key to determine whether the requester may access the software is not persuasive because

Takahashi discloses checking the user information storage unit for a shared key that matches the

ID of the requestor and if there is no match the order is not accepted (Col. 12, lines 20-24). If

there is a match the user is subsequently granted access to the software (Col. 12, line 25 – Col.

13, line 33). It would have been obvious to one of ordinary skill in the art at the time the

invention was made for the registration process of Ananda to include the delivery of a

cryptographic key to the software server in order to establish encrypted communication between

the server and the user as taught in Takahashi (Col. 2, line 12).

5.   Applicant's argument that the prior art does not teach generating a random component to

include within the message, and that determining whether the second computer system is

authorized to access the software further comprises determining whether the decrypted response

includes the generated message is not persuasive because Ananda discloses the generation of a

pseudorandom password that is generated and included in the messages to the requester, which is

subsequently to authorize the requester (Col. 11, line 9 – Col. 12, line 63), which also meets the

limitations of determining whether a message included in the encrypted response matches the

generated message, wherein the second computer is authorized to access the software if the

message included in the encrypted response matches the generated message, a message being

generated, encrypted and sent to a second computer system, which is then included in an

encrypted response by the second computer system to the first computer system. The specifics

with respect to the timestamp are disclosed in section 10 of the Office Action dated 09 August

2004.

6.   Applicant's argument that the prior art does not teach the user computer providing a key

to the first computer, and then transmitting a response to the first computer that can be decrypted

by the sent key, and the receiving access to the requested software in response to the encrypted

response message is not persuasive because the Ananda and Takahashi references disclose a

secure software rental system wherein a user requests software from a central server. The central

server then generates an encrypted message and sends it to the user (Ananda, Col. 11, lines 45-

60), which meets the limitation of generating an encrypted message and transmitting it. The user

receives and decrypts the message and sends and encrypted response to the central server

(Ananda, Col. 12, lines 15-34), which meets the limitation of receiving an encrypted response

from the second computer system. The central server receives the encrypted message and

decrypts it. The central server then compares the message using a password correlation algorithm

against the stored information regarding the user processor clock time (random component, time stamp), the user identification password, and the authorization verification password (Ananda, Col. 12, lines 36-46), which meets the limitation of determining whether there is a code make available by the second computer system capable of encrypted the received encrypted response, decrypting the encrypted response with the determined code if there is one determined code, and processing the decrypted response to determine whether the second computer system is authorized to access the software. Once authorized the user is able to receive the application software (Ananda, Col. 12, lines 47-53), which meets the limitation of permitting the second computer system access to the software after determining that the second computer system is authorized to access the software. Ananda does not disclose that the key used for decryption is made available by the second computer. Takahashi discloses a software distribution system wherein a shared key is generated at a user computer and is transmitted to the software store (Takahashi, Col. 2, lines 10-25) at registration time (Takahashi, Col. 5, lines 32-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the registration process of Ananda to include the delivery of a cryptographic key to the software server in order to establish encrypted communication between the server and the user as taught in Takahashi (Col. 2, line 12).

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 1-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. The added material which is not supported by the original disclosure is as follows:

"Maintaining keys of all authorized users of software to be distributed" from claims 1, 16, 27,

"wherein the maintained keys comprise public keys from the authorized users" from claims 9,

11, 22, 24, 35, 37. Applicant points to page 6, lines 14-20 and page 7, line 14 to page 8, line 15

of the specification for support of these limitations. These portions of the specification disclose

that the source system maintains key of all authorized systems of software to be distributed, but

is silent with respect to individual users. Therefore the amendments are improper because they

require the source system or first system to maintain keys of all authorized users rather than

authorized systems as disclosed in the specification.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

10.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

11.   Claims 1-4, 7-30, 33-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ananda, U.S. Patent No. 5,495,411, in view of Takahashi, U.S. Patent No. 6,195,432. Referring

to claims 1-4, 8, 12, 13, 15-19, 21, 25, 27-30, 34, 38, 39, Ananda discloses a secure software

rental system wherein a user requests software from a central server. The central server then

generates an encrypted message and sends it to the user (Col. 11, lines 45-60), which meets the

limitation of generating an encrypted message and transmitting it. The user receives and decrypts

the message and sends and encrypted response to the central server (Col. 12, lines 15-34), which

meets the limitation of receiving an encrypted response from the second computer system. The

central server receives the encrypted message and decrypts it. The central server then compares

the message using a password correlation algorithm against the stored information regarding the

user processor clock time (random component, time stamp), the user identification password, and

the authorization verification password (Col. 12, lines 36-46), which meets the limitation of

determining whether there is a code make available by the second computer system capable of

encrypted the received encrypted response, decrypting the encrypted response with the

determined code if there is one determined code, and processing the decrypted response to

determine whether the second computer system is authorized to access the software. Once

authorized the user is able to receive the application software (Col. 12, lines 47-53), which meets

the limitation of permitting the second computer system access to the software after determining

that the second computer system is authorized to access the software. Ananda does not disclose

that the key used for decryption is made available by the second computer. Takahashi discloses a

software distribution system wherein a shared key is generated at a user computer and is

transmitted to the software store (Col. 2, lines 10-25) at registration time (Col. 5, lines 32-36). It

would have been obvious to one of ordinary skill in the art at the time the invention was made

for the registration process of Ananda to include the delivery of a cryptographic key to the

software server in order to establish encrypted communication between the server and the user as

taught in Takahashi (Col. 2, line 12).

Referring to claims 9, 14, 22, 26, 35, Takahashi discloses the use of public key

cryptography in the method for transfer of payment information between the software store and

the user (Col. 2, lines 4-67). It would have been obvious to one of ordinary skill in the art at the

time the invention was made for the software rental system of Ananda to use public key

encryption during the transfer of payment information in order to enable electronic purchase of

software without a danger of having a credit card number stolen as taught in Takahashi (Col. 3,

lines 21-24).

Referring to claims 10, 11, 23, 24, 36, 37, 40, Ananda discloses that the response contains

the user processor clock (configuration data) (Col. 12, lines 20-25).

Referring to claims 7, 20, 33, Takahashi discloses a method for installation of the

received software offered through the network (Col. 4, lines 32-35), which meets the limitation

of automatically causing the installation of the computer software on the second computer

system when the computer software is transmitted to the second computer system. It would have

been obvious to one of ordinary skill in the art to automatically install the transmitted software in

Ananda in order to assist users who are not accustomed to handle a personal computer as taught

in Takahashi (Col. 3, lines 57-64).

12.   Claims 5, 6, 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ananda, U.S. Patent No. 5,495,411, in view of Takahashi, U.S. Patent No. 6,195,432 as applied

to claims 1, 4, 27, 30 above, and further in view of Komura, U.S. Patent No. 5,994,307.

Referring to claims 5, 6, 31, 32, Ananda discloses a secure software rental system wherein a user

requests software from a central server. The central server then generates an encrypted message

and sends it to the user (Col. 11, lines 45-60), which meets the limitation of generating an

encrypted message and transmitting it. The user receives and decrypts the message and sends and

encrypted response to the central server (Col. 12, lines 15-34), which meets the limitation of

receiving an encrypted response from the second computer system. The central server receives

the encrypted message and decrypts it. The central server then compares the message using a

password correlation algorithm against the stored information regarding the user processor clock

time (random component, time stamp), the user identification password, and the authorization

verification password (Col. 12, lines 36-46), which meets the limitation of determining whether

there is a code make available by the second computer system capable of encrypted the received

encrypted response, decrypting the encrypted response with the determined code if there is one

determined code, and processing the decrypted response to determine whether the second

computer system is authorized to access the software. Once authorized the user is able to receive

the application software (Col. 12, lines 47-53), which meets the limitation of permitting the

second computer system access to the software after determining that the second computer

system is authorized to access the software. Takahashi discloses a software distribution system

wherein a shared key is generated at a user computer and is transmitted to the software store

(Col. 2, lines 10-25) at registration time (Col. 5, lines 32-36). Ananda does not disclose using

time stamps as an offset in the transmitted messages. Komura discloses a packet transmission system wherein time stamp offset values are attached to data packets (message)(Col. 7, lines 22-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use time stamp offset values in the system for secure software rental for synchronizing purposes taught in Komura (Col. 6, lines 40-67).

Conclusion

13.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 571-272-3805. The examiner can normally be reached on M-Th0 7:30am-5:00pm, F 7:30am-4pm.
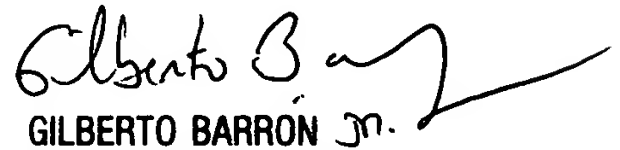
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin E. Lanier

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